

DEER HERD UNIT MANAGEMENT PLAN
Deer Herd Unit # 14
San Juan
April 2006

BOUNDARY DESCRIPTIONS

San Juan County - Boundary begins at the confluence of the San Juan and Colorado rivers; north along the Colorado river to US-191; south on this road to the Big Indian road; east on this road to the Lisbon Valley road; southeast on this road to the Island Mesa road; east on this road to the Colorado state line; south on this line to the Navajo Indian Reservation boundary; southwest along this boundary to the San Juan River; west on this river to the Colorado River.

LAND OWNERSHIP

Unit 14A - San Juan, Abajo Mountains

RANGE AREA AND APPROXIMATE OWNERSHIP

	Yearlong range		Summer Range		Winter Range	
Ownership	Area (acres)	%	Area (acres)	%	Area (acres)	%
Forest Service			130454	38	1670	0.2
Bureau of Land Management			75780	22	420722	61
Utah State Institutional Trust Lands			9219	3	59981	9
Native American Trust Lands			0	0	12	0.01
Private			125767	37	210695	30
National Parks			0	0	390	0.06
Utah State Parks			0	0	0	0
Utah Division of Wildlife Resources			0	0	0	0
TOTAL			341220	100	693470	100

Unit 14B - San Juan, Elk Ridge**RANGE AREA AND APPROXIMATE OWNERSHIP**

	Yearlong range		Summer Range		Winter Range	
Ownership	Area (acres)	%	Area (acres)	%	Area (acres)	%
Forest Service	225	0.3	168372	65	19210	3
Bureau of Land Management	64649	94	50048	19	505156	76
Utah State Institutional Trust Lands	4055	6	4688	2	50213	8
Native American Trust Lands	0	0	0	0	7	0.01
Private	0	0	3076	1	6042	1
National Parks	15	0.02	69	0.03	54196	8
National Recreation Area	0	0	0	0	10983	2
USFS & BLM Wilderness Area	106	0.2	32973	13	12679	2
Utah Division of Wildlife Resources	0	0	0	0	0	0
TOTAL	69050	100	259226	100	658486	100

UNIT MANAGEMENT GOALS

Manage the deer population for optimum herd size compatible with forage resources and existing land uses with emphasis on maintaining a diverse buck age structure. Consider various publics in managing deer to provide a diversity of hunting and viewing opportunities.

POPULATION MANAGEMENT OBJECTIVES**Target Herd Size**

- < Long-term Objective - Achieve a winter target population size of 20,500 deer. (13,500 deer on **Abajo Mountains** subunit and 7,000 deer on **Elk Ridge** subunit).
- < Short-term Objective - No changes needed in population objectives for the five year life of this plan The DWR permanent range trend survey of 2004 returned a DCI score that is at lower end of "fair" classification range, but above the threshold value requiring a reduction in short-term population objective.

Unit 14	Objective from past plan (2001)	Long-term Objective	2006-2011 Objective	Change
Abajo Mountains	13,500	13,500	13,500	0

Elk Ridge	7,000	7,000	7,000	0
UNIT TOTAL	20,500	20,500	20,500	0

Herd Composition

- < **Abajo Mountains** - Maintain a region-wide three-year average postseason ratio of 15-20 bucks per 100 does.
- < **Elk Ridge** - Maintain a three-year average postseason ratio of 25-35 bucks per 100 does.

POPULATION MANAGEMENT STRATEGIES

Monitoring

- < Harvest
Abajo Mountains - Buck harvest strategies will be developed through the RAC and Wildlife Board process to achieve management objectives for herd composition. Utilize antlerless harvest when population objectives are met or to address specific habitat and depredation concerns.

Elk Ridge - Continue limited entry hunting to maintain herd composition objectives and quality hunting opportunities. Utilize antlerless harvest when population objectives are met or to address specific habitat and depredation concerns.

- < Population Size - Herd population will be estimated by computer modeling based on data from postseason and spring classifications, mortality estimates and harvest surveys.
- < Short-term Population Objective - Manage deer populations to attain satisfactory range conditions based on desirable components index (DCI) scores on winter ranges. Where winter range is a limiting factor, reduce current populations by 20% on any subunit when weighted DCI score falls in to "poor" classification or below. On subunits where winter range condition is classified as "fair" or better deer populations will be allowed to expand toward current long-term objectives.

Management toward short-term objectives should consider the following:

- Management efforts should focus on improving deer habitat and carrying capacity.
- Declines in winter range carrying capacity are currently not entirely a result of over utilization by deer.
- Population control (if needed) and habitat improvement projects should be focused on areas where range degradation is most prevalent.
- Short-term population objectives should be evaluated and updated every 5 years as new range trend data is compiled.
- Biologists should closely monitor winter ranges. If deer utilization is excessive and is causing range degradation and increased over-winter deer mortality, short-term objectives should be reduced.

- < Buck Age Structure - Age class structure of the buck population will be monitored through the use of harvest check stations, field harvest checks, postseason classification, and uniform harvest surveys.

Limiting Factors (May prevent achieving management objectives)

- < Crop Depredation - Damage complaints will be addressed in accordance with established state laws and DWR policies.
- < Habitat - Monitor range conditions and deer use to maintain habitat quality necessary to achieve the population objectives (see Habitat Management Strategies). Identify areas where deer escapement could be enhanced through permanent or temporary road closures or other restrictions on motorized access. Excessive habitat utilization will be addressed through antlerless harvest in specific problem areas.
- < Predation - Seek assistance from Wildlife Services when deer populations are depressed and when predator control efforts have a reasonable chance of aiding deer herd recovery. Increased cougar harvest will be recommended to benefit deer at low population levels. Predator control and harvest will be conducted as prescribed by DWR predator management policy and unit predator management plans.
- < Highway Mortality - Cooperate with Utah Dept. Of Transportation in construction of highway fences, passage structures and warning signs etc.
- < Illegal Harvest - Implement specific preventive measures within the context of an action plan developed in coordination with the Law Enforcement Section when illegal kill has been identified as a significant source of deer mortality.

HABITAT MANAGEMENT OBJECTIVES

- < Maintain and protect existing critical deer ranges sufficient to support the population objectives. Seek cooperative projects to improve the quality and quantity of deer habitat. Maintain and enhance habitat security and escapement areas for deer.

HABITAT MANAGEMENT STRATEGIES

Monitoring

- < Determine trends in habitat condition through permanent range trend studies, pellet transects, and field inspections. Land management agencies will similarly conduct range monitoring to determine vegetative trends, utilization and possible forage conflicts.
- < Range trend studies will be conducted by DWR to evaluate deer habitat health, trend, and carrying capacity using the DCI. The DCI index was created as an indicator of the general health of big game winter ranges. The index incorporates shrub cover, density and age composition as well as other key vegetation variables. Changes in DCI suggest changes in winter range capacity. The relationship between DCI and the changes in deer carrying capacity is difficult to quantify and is not known.

Condition of deer winter range on WMU 14, as indicated by DWR permanent range trend surveys.

Year	Mean DCI score for Unit	Classification	Unit-specific DCI score range: Poor	Unit-specific DCI score range: Fair	Unit-specific DCI score range: Good
1994	56	Good	23 - 37	38 – 54	55 – 73
1999	44	Fair			
2004	39	Fair			

Habitat Protection and Maintenance

- < Work with publicland management agencies to develop specific vegetative objectives to maintain the quality of important deer use areas.
- < Continue to coordinate with land management agencies in planning and evaluating resource uses and developments that could impact habitat quality.

Habitat Improvement

- < Cooperate with federal land management agencies and private landowners in carrying out habitat improvements such as reseeding, controlled burns, water developments etc. on public and private lands.
- < Cooperate with federal land management agencies and local governments in developing and administering access management plans for the purposes of habitat protection and escape or security areas.
- < **Abajo Mountains** - Pursue projects for aspen regeneration at Racetrack Reservoir, Aspen Flat and Bear Creek. Rehabilitate browse by rollerchopping at Shingle Mill Draw and Brushy Basin. Pursue pinyon-juniper treatment projects at Shay Mesa and Blue Creek Point.
- < **Elk Ridge** - Pursue projects for aspen regeneration at Gooseberry/Deadman Point, Kigalia and Twin Springs. Pursue pinyon-juniper treatment projects at Dark Canyon Plateau, North Long Point, South Maverick Point, Little Baullies Mesa and Cedar Mesa. Work cooperatively with BLM to design and implement sagebrush rehabilitation projects in Beef Basin. Complete experimental reseeding plots and prescribed burn at South and North Plains. Eliminate spring grazing from South and North Plains for duration of project study. Repair and maintain fenced exclosures at Middle Park, Stanley Park, South Plain and Beef Basin Wash.

PERMANENT RANGE TREND SUMMARIES

Unit 14A - San Juan, Abajo Mountains

The Abajo Mountains subunit consists of 11 permanent range trend sites, six of which are

winter or transitional range for deer and/or elk. Data from the range trend sites were last obtained in 1999. Three of the lower elevation winter sites are used predominantly by deer. All summer range study sites are used by both deer and elk.

Data from winter trend sites indicated stable or improving soil trends. Browse trends were stable on 4 sites, but down on 2 important deer wintering areas. Both sites displayed moderate to heavy use, poor reproduction, and high percent decadence. All winter trend sites displayed downward herbaceous trends and a dramatic increase in cheat grass. Pinyon-juniper stands dominate much of the winter areas but contain sufficient natural openings to provide good quality habitat.

The five summer range sites had generally stable soils and herbaceous understory. Browse trends were stable or slightly improving on all summer sites except one. The amount of available summer range in proportion to the large amount of winter range appears to be the limiting factor for deer populations on this unit.

Unit 14B - San Juan, Elk Ridge

There are 19 permanent range trend sites on the Elk Ridge subunit. These trend sites were last read in 1999. Fourteen of these study sites are winter range used by both deer and elk. Three of the lower elevation winter sites are used predominantly by deer. All summer range study sites are used by both deer and elk.

Seven of the 14 winter sites showed stable or improving soil trends. The other 7 sites displayed downward trend or poor condition. Browse trends were down on 9 sites, stable on 3 sites, and up on 2 sites. Most of the downward trends were due to extended drought, heavy use, poor reproduction, and high percent decadence on sagebrush. Herbaceous understory trends were down on 8 sites, stable on 4 sites, and up on 2 sites. Of the 8 declining sites, 5 displayed a dramatic and significant increase in cheat grass. Pinyon-juniper stands dominate much of the winter and transitional areas and vegetative manipulation could provide more forage and improve herd distribution. Maintenance of old vegetative treatments also has potential for improving the quality and quantity of available winter forage on this unit.

Summer range sites had generally stable soils. Herbaceous trends were declining at 3 of the 5 summer trend sites and stable at the other 2 sites. High quality summer range represents only a small percentage of this unit and is an important limiting factor for deer populations on this unit. Extended summer droughts have significantly contributed to the declining range conditions and ultimately effected deer production.

Duration of Plan

This unit management plan was approved by the Wildlife Board on _____ and will be in effect for five years from that date, or until amended.

APPENDIX

Unit 14A - San Juan, Abajo Mountains

San Juan County - Boundary begins at the junction of Highway US-163 and South Cottonwood Creek (near Bluff); then north along this creek to Allen Canyon; north along this canyon to Chippean Canyon; north along this canyon to Deep Canyon; north along this canyon to Mule Canyon; north along this canyon to the Causeway; north from the Causeway to Trough Canyon; north along this canyon to North Cottonwood Creek; north along this creek to Indian Creek; north along this creek to the Colorado River; north along this river to Highway US-191; south on this road to the Big Indian road; east on this road to the Lisbon Valley road; southeast on this road to the Island Mesa road; east on this road to the Colorado state line; south on this line to the Navajo Indian Reservation boundary; west and south along this boundary to the San Juan River; west on this river to Highway US-163; then east on this highway to South Cottonwood Creek.

Unit 14B - San Juan, Elk Ridge

San Juan County - Boundary begins at the junction of highway US-163 and South Cottonwood Creek (near Bluff); north along this creek to Allen Canyon; north along this canyon to Chippean Canyon; north along this canyon to Deep Canyon; north along this canyon to Mule Canyon; north along this canyon to the Causeway; north from the Causeway to Trough Canyon; north along this canyon to North Cottonwood Creek; north along this creek to Indian Creek; north along this creek to the Colorado River; south on this river to the San Juan River; east on this river to highway US-163; east on this highway to South Cottonwood Creek.